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AUTHOR Meyers, D. Mark  
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## ABSTRACT

This study investigated whether there would be an increase in college student's participation in a college methods course that utilized virtual office hours. Virtual office hours involved a specific time when the professor was available for private or public questions and discussions via the Internet. Two groups of students participated in a social studies methods course where virtual office hours were made available twice a week. Laptop computers were issued for the duration of the semester. Students also participated in required asynchronous discussions online. Data were collected from the course and from student interviews regarding the virtual experience. Results indicated that participating students developed a classroom culture that functioned during the virtual office which not only supported classroom discussions but also created a comfort level that augmented participation during the actual class time. Students reported that the virtual office hours had a direct impact upon class discussions. The virtual office provided students with a model of thoughtful discussions that they could then practice for themselves. With the confidence developed from this practice, students subsequently developed their own means of putting these ideas into practice. (Contains 22 references.) (SM)

# The Impact of Virtual Office Hours on In-class Participation

Paper Presented at the 2003 Annual Meeting of  
The American Educational Research Association

D. Mark Meyers  
Rowan University  
Meyers@rowan.edu

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In today's educational setting, teachers are looking for ways to connect with students. Teachers are entering the classroom expecting students to be similar to the students they remember from when they were in school. Instead, teachers entering the classroom today find a diverse group of students, that changes every year in composition. The diverse nature of the current classroom environment requires teachers to revisit their views of teaching and learning. As Dunn illustrates, "If we take the responsibility for teaching diverse learners, we must break tradition." (1995, p. 30). The tradition that needs attention today comes in the form of interaction with the students. Teachers need to find ways to interact with the students that will entice the students into being more involved in the classroom.

Teachers cannot succeed in the classroom alone. Success depends upon the amount of effort students invest in the classroom (Newmann, 1991). Teachers cannot function if the students do not allow them to do so. If teachers are operating only within the confines of the classroom, not all students will be reached. The time has come for teachers to move out and interact with the students in other situations. Teachers have a larger impact on students than they generally believe. Skinner and Belmont reported in their study that teacher behavior influences student perception of their interactions with teachers as well as influencing student engagement (1993). The students need to be shown the meaning of new information (Caine and Caine, 1995). In this case, the new information is a reason for students to become involved in the classroom. One means of accomplishing this new function appears if teachers interact with students outside of the classroom, moving from a teacher centered area to one where students feel more comfortable. One such area of student comfort is the virtual world of the internet.

The internet has become such a part of the educational structure that many people cannot imagine their classroom without it. However, this does not mean that instructional strategies have been adapted to utilize what the internet can offer. This requires a shift in view of teaching and teacher education. As Poole (1995) has suggested:

Education must therefore, continue to broaden its definition of what constitutes a successful student, for no two graduates will be equally or identically shaped by what goes on in schools. (p. 406)

The school must no longer be looked upon as a factory, producing identically prepared students. Instead, each student needs to be presented with the opportunity for personalization of instructional goals (Powell, Farrar, & Cohen, 1985). In many ways, what we are asking teachers to do with technology, especially the internet, requires them to rethink their instructional assumptions.

For many years, teachers in general, and college professors in particular have focused their energies on presentation, being sure to convey the best information possible to their students and leaving it the task of the students to learn the information. In this manner, teachers of all levels can learn from the idea of the classroom as a learning community. As stated by Schaps (2003), "community building should become at a minimum a strong complement to the prevailing focus on academic achievement. Technology has become seen as one of the means to aid students in the development of a learning community. (Burns, 2002). The virtual office is one example of a means that technology can help to build a learning community.

Virtual office hours are defined for this study as a professor's established time where he or she will be made available for private or public questions and discussions via the internet. Any of the public messaging programs such as AOL messenger or Yahoo messenger or private programs such as Blackboard or WebCt can be utilized. The intent of the use of the virtual office is to provide students with increased opportunities to interact with the teacher in a format that is under their supervision. The virtual office can therefore provide students with an extrinsic motivator. Some studies have suggested that student task motivations are strongly influenced by the goals and values set forth within the environment established by the teacher (Newby, 1991). What message does the virtual office interaction send to the students? An invitation to interaction on the student's terms sends the message that the teacher is willing to move into their "space". As a result, some of the students might decide to interact with the teacher on the teacher's terms. This interaction can become especially important if there are cultural differences between teacher and student. Teachers can easily misread student aptitudes, intent or abilities as a result of the differences in styles of

language use and interactional patterns (Delpit, 1992). In order to instruct effectively, teachers need to be aware of the culture of the students and adapt classroom strategies accordingly (Barnitz, 1994). In order for this to occur, the teacher needs to gather information about the students. This information can come from other teachers, administrators, and parents; however, the most useful information for the teacher can come from the students themselves. This can be seen in the interaction which occurs outside the classroom. Again, the virtual office becomes a perfect example of this interaction. Many students are more comfortable interacting in an internet chat, both public and private, and will reveal information they never would have ventured to say during class. Students today have grown accustomed to operating in the virtual arena with a confidence, based on the safety factor of "distance", that has never been available to students previously.

In addition, to recognizing cultural implications for the classroom, interaction in the virtual office would provide teachers with an opportunity to model behaviors for the students. A teacher can provide multiple perspectives for their students when modeling technological usage. Without multiple representations, students are able to perform well on measures of "factual knowledge," but these same students suffer in terms of knowledge transfer for later use (Jacobson, & Spiro, 1993). The dispositions of the teacher to learn needs to be visible to the students (Katz, 1993). Much of learning to be a good thinker is learning to recognize and even search for opportunities to think (Resnick, 1987). In addition, students will not know to be learners unless they are shown how (Banks, 1994). By modeling other avenues of thoughtfulness, teachers give students another outlet as well as another reason to become thinkers and learners. Students will follow the cues that teachers set, whether they are positive or negative. How does this apply to a discussion on the internet? The students are following cues that the teacher may not even be aware they are sending (Dorr-Bremme, 1990). Discussions of current events between teachers often occur during the virtual office. If students can see and "overhear" such discussions, they will be presented with a model of the importance of remaining current with relevant topics.

The virtual office hours also presents preservice teachers with an opportunity to practice discourse in a reflective manner. Students must have opportunities to develop academic discourse,

that is both linguistic and cultural knowledge about what it means to be a member of a particular community, for instance a classroom, in order to achieve academic competence (Gutierre, 1995). This conclusion can also be connected to technology in general and instant messaging in particular. Students need to use discourse in school; however, school discourse is qualitatively different from everyday discourse because "words are not only used as a means of communication, but as an object of study as well" (Moll, & Whitmore, 1993, p. 20). Students today are utilizing instant messaging via the internet as a means of communication that often replaces traditional forms of communication such as face-to-face or telephone conversations. These forms of communication are extremely powerful, yet are not currently structured in their mind in such a way that they can provide "academic" knowledge. This is another example of the general thesis of Howard Gardner in his work, *The Unschooled Mind*, (1993) in this instance, however, students are communicating and learning differently in school and out of school via technology, and the differences for many have never been quantified. A question to ask has been, has instant messaging language filtered into class discussions? How about the opposite? The virtual office hours are intended to provide students with the opportunity to communicate and learn in such a way that they can make explicit connections between their schooled and unschooled minds.

### **Methodology**

The research question for this study is whether there would be an increase in participation by students in a collegiate methods course that is utilizing virtual office hours.

### *Participants*

During the spring of 2001, Two groups of students (n=22 and n=20) participated in a social studies methods course where virtual office hours were made available two times a week. The two sections of the course met on the same day of the week. Both groups were allowed to "attend" the virtual office hours; they were not limited to a single group at any particular time. Each of the students in the course was issued laptops for the duration of the semester. Participation was not "forced" in the virtual office hours. Students were not required to be a part of the discussions; they had the opportunity to do so. These laptops allowed students to access the Internet either on campus or off. In addition to the virtual office hours, students also participated in asynchronous discussions online. These discussions were a required portion of the course and utilized the text, *Stories of Teaching* by Stephen Preskill and Robin Jacobvitz.

### *Data Collection*

The course consisted 16 three hour sessions in the afternoon or evening, following a morning spent at a partner K-12 school, where the students conducted observations and sample lesson presentations. The virtual office techniques were discussed the first evening of the course and a practice session was conducted during the second and third meetings, to ensure that each of the students could participate if they chose to do so. The initial meeting of the virtual office came after the third course meeting. Data on classroom participation was gathered by indicating the number of individual students who either initiated a probing question or participated in a classroom discussion on at least 7 occasions during the second and third course meetings. Similar data was collected during the 14th and 15th meetings of the course. (Note: the final meeting of the course consisted of portfolio presentations and would not have been conducive to data collection).

During the week following the last course meeting, each of the students participated in an hour long interview. During the course of the interview each student was asked a series of questions concerning the events of the semester, including the virtual office, as well as questions regarding teaching professionalism and the upcoming student teaching experience. Student verbal responses to questions both closed and open ended, were tabulated and a comparison conducted.

## Results

| Section | N  | Initially Active | Participants virtual office Week one | Participants virtual office week 13 | Active post virtual office |
|---------|----|------------------|--------------------------------------|-------------------------------------|----------------------------|
| One     | 22 | 9 = 41%          | 4 = 18%                              | 14 = 64%                            | 18 = 82%                   |
| Two     | 20 | 10 = 50%         | 5 = 25%                              | 15 = 75%                            | 18 = 90%                   |

During the end of course interviews, a clear majority of students, (73% and 70% respectively) indicated their belief that the virtual office hours had a direct impact upon class discussions. This was not a result that one had to dig into the data in order to find it, virtually every student reported the impact. Before reporting specific student responses, it would be beneficial to discuss the general pattern of the semester during the methods course.

At the beginning of the methods course, the students seemed reluctant to discuss anything 'publicly' during the virtual office hours. As a session would commence, most of the difficult issues that a particular student would bring to the discussion would be filtered through the professor, as in this exchange early in the semester: (please note: student names have been replaced with numeric identifiers)

Rowanprof: I wanted to see your opinions on the following: if a student comes to you with a question regarding the behavior of another teacher, what would your reaction be?

Student18: What kids would ever tell a teacher such a thing?

Student07: Teachers can be held liable for anything they might hear in a school.

(Private message from Student 14): I had a teacher one time that really helped me through some issues, she was one of the best teachers ever. She was just one of those people who really cared.

(Private message from Student 04) I know I had teachers I wished I would have shared some things with, but I never felt comfortable enough with them to open up.

During this discussion, 12 private messages were sent to the professor. The professor had to post a probing question each time in order foster any sort of student response. Later in the semester the tone and interaction shifted to one that even might be considered on the verge of professional. The discussions were no longer superficial in public with questions coming to the professor in private, instead the discussion for the most part was in the public setting.

Rowanprof: We had an issue today arise that I wanted to get your thoughts on, if you had reason to suspect that one of your students was cheating by having reports done for them, what would your reaction be?

Student18: I have seen students at my school that I think are not doing their own work, I was going to talk to my coop about it and see what he thought.

Student06: My coop has a zero tolerance policy, he has an academic honest policy that he puts on every test.

Student14: I think there are kids cheating in every room if you look hard enough?

Student11: Is there one of those issues like when we talked about copywright (sic) where the law is just being willfully ignored?

Student04: My teacher had to have a lotta parent-teacher conferences on this issue, seems like parents were writing (or help writing) papers for college pre kids so that they could get a higher grade.

Student06: I wonder if that would apply to the zero tolerance policy?

Student02: What could a teacher do to prove such a thing? Wouldn't the parents just deny doing it?

Student07: (Student04) was this a higher lever or lower level course?

Student04: Higher honors course

Student12: Parents in a lower course probably wouldn't have cared enough or had the ability to write the papers.

The discussion went on in this vein for another twenty minutes. During which time, no fewer than 7 personal stories were shared regarding this issue. The professor never posted another message after raising the initial question, the entire discussion was student centered. Additionally, only one private message was sent to the professor, and it was a questions not on topic.

During the exit interviews, four general areas emerged as driving forces for the students in terms of participation in the virtual office hours. These areas were: subject matter concerns, public speaking/dealing with shyness, dealing with difficult issues, and motivation of today's students. For each of these areas, a sample student will be presented with a interview excerpt.

In the social studies methods course, the majority of students are history majors, while the subjects that have to be taught encompass all of the social sciences. The comfort zone with the subject areas, or lack thereof, can run in two directions. The history majors tend to intimidate the non-history majors who feel threatened by their lack of self confidence in their own historic knowledge. While on the other side, the history majors feel just as uncomfortable sometimes when presented with or having to teach in the other subject areas. As one geography major reported:

I felt really intimidated by the discussions in class at first. When we talked about Carr [note: E.H. Carr, What is History?] I felt like I don't know half as much as the history majors, so I just kept quiet. Online, I started to get into the discussions about certain things and I found out that they didn't know as much as I thought, so I started to talk a bit more and tell them what I thought was just as important as what they said. By the end of the semester, it didn't make a difference if I was talking in class or online.

Some of the students in the course have difficulties in speaking in front of their classmates. Others are second career students who are back at in school after a long layoff. In either case, the fear of public speaking is an issue that has to be addressed if one is to become a successful teacher.

I always felt uncomfortable speaking in front of my peers. Little kids are no problem, but in class? No way! But a lot changed when I started to get noticed for what I said when we talked about the issues on-line. When I got noticed for what I said, that gave me the confidence to speak my mind. I realized there was nothing to be scared of, it was just like talking in front of kids.

Social studies teachers are constantly dealing with difficult issues. It is something that can never be avoided, it will arise in each classroom at one time or another. During the virtual office

hours, students brought issues into the discussion that arose in the classrooms they were operating on during the day. Classroom teachers participating in some of the discussions on these sensitive topics to bring a practitioner's perspective to the issue. As one student reported:

I come from a town that is never very diverse. I had always thought that I had been raised to be open minded and sensitive to others. For my field placement, I was put into an urban setting that I was not very happy about going to at first. What I found was that I had a lot of questions that I was afraid of asking while at the school. I didn't know which questions might be taken the wrong way, and which questions might label me as bigot, so I didn't asked anything. In the discussions online, I found that I was not alone in my fears and it wasn't until the teachers "forced" us to ask some of those questions that I realized it was not only okay to ask the questions, it was an expectation.

A second student reported:

I don't know if I attended a perfect school or something, but I cannot remember dealing with as many issues as I have seen in the school this semester. At the school I attended there was a racial motivated fight which involved weapons between two students. It really shook me up and for a moment I considered whether or not to continue at the school. It wasn't until we talked about it in class, that I realized the important role school must play in these situations. I didn't even realize the extent to which this was already happening and how schools were helping kids deal with life.

It is interesting to report that the discussion on this issue was totally online. During class time, we only referenced the discussion that had occurred in the virtual office. This student demonstrated the feeling that many of the students developed during the class, it was difficult to distinguish between virtual and "real" class time. They had become synonymous.

A large number of preservice teachers enter into teacher education programs with overly optimistic view of the classroom. These students come with a utopian view of the classroom that reality can never match. The virtual office hours allowed the students to get past their

initial shock when confronted with the reality of the classroom and in some cases even become reenergized about their calling to be a teacher.

When I decided to be a teacher, I always thought of working with kids that were like me. Interested in learning and motivated to get good grades. I also assumed that there would be a group of kids in the school who didn't want anything to do with learning, but of course I wouldn't have "those kids" in my classes. In my field work, I saw general classes that were full of kids that at first I thought should have been in jail more than a classroom. Then I got to hear some of the stories that people shared about their schools and the successes in reaching kids. That restored my hopes but changed my vision of myself as a teacher, right now I am thinking about working with "those" kids that most teachers don't want to deal with.

#### Discussion

The virtual office hours presents a new means of connecting with students outside of the classroom in a manner in which they are more accustomed. The students in the two sections of the methods course developed a classroom culture that functioned during the virtual office that not only supported the classroom discussions, the comfort developed during the virtual office augmented participation during 'actual' class time. The virtual office provided the students with a model of thoughtful discussions that they then were allowed to practice for themselves. With the confidence that was developed from this practice, the students then develop their personal means to put these ideas into their own practice. The students had become accustomed to using this tool in order to facilitate their work during student teaching and into their professional lives. (It is interesting to note that of the 42 unit plans developed by the students in this methods course, 38 of them had a reference to some sort of internet activity for students that was then build upon in class work.) I have to report that a large number of students from the methods courses still communicate using instant messaging, including communicating with a former professor of theirs.

This study is only a simple starting point for the discussion of the impact the internet can have on the classroom. While in this small scale situation a direct impact on the classroom was seen, there is no reason to assume that it can be replicated in other sites until such

studies are conducted. While such studies should also include the areas of the social studies, they should not be limited to them. One hypothesis to test would be whether the interactive nature of studying social science content and pedagogy had any impact upon the results.

An important question for teachers to focus on becomes: What impact is the teacher having on the students and the environment within which they are operating? (Michaels and Bertram, 1989) Too often, the classroom becomes all encompassing for the teacher in general and college professors in particular. Teachers need to focus the answer to this question both inside and outside of the classroom. Students do not stop watching their teachers when the bell rings and they leave the classroom. If teachers expect students to transfer learning from one class to another or even one context to another, should not the students expect the teachers to "do as they say?" If learning is the goal for teachers, they must realize that isolating themselves away from the students is sending the wrong message. The idea of an office hour that is available for students to speak with professors has become problematic in these times of students intense and event filled schedules. In order to achieve academic competence, students must be able to develop the notion of what it means to be a member of a particular classroom community (Gutierrez, 1995, Burns, 2002). For some students, this can occur totally inside the classroom. For others, however, an alternative needs to be found. Since teachers cannot be expected to go out and visit each student at home in order to interact with him or her, another location for interaction needs to be found. One place that can be used is the Internet. If teachers are worried about the time that it would take to pursue such activities, they are correct that it will take often a great deal of time. However, if giving up some of the teachers' time can be seen as a sacrifice to make, is the sacrifice not worth it if even a single student can be reached because of it?

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